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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,343	03/02/2005	Amy Christine Dimmick	DN00-047	8933
7590 07/30/2008				
Michael J Herman Minerals Technologies Inc One Highland Avenue Bethlehem, PA 18017				
EXAMINER				
PARVINI, PEGAH				
ART UNIT		PAPER NUMBER		
1793				
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07/30/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/526,343

## Applicant(s)

DIMMICK ET AL.

## Examiner

PEGAH PARVINI

## Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE-US)  
Paper No(s)/Mail Date 20050622
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

Applicants' election without traverse of claims 1-12 in the reply filed on April 21, 2008 is acknowledged.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,156,286 to Fortier et al. in view of US Patent No. 5,068,276 to Suitch et al.

Fortier et al. disclose fine-grained aragonite precipitated calcium carbonate (PCC) having a particle mass fraction of 50 wt% having a size of less than 0.5  $\mu\text{m}$ ; further, the particles have a median particle size between 0.3 and 0.5  $\mu\text{m}$  (Abstract; column 3, lines 31-40; column 4, lines 58-62). Additionally, Fortier et al. disclose the use of said aragonite precipitated calcium carbonate in pigments and paper manufacturing (coating applications) (column 1, lines 1-36, 50-52).

Fortier et al. do not expressly disclose the size distribution of particles.

Nevertheless, it would have been obvious to one of ordinary skill in the art to have utilized a size distribution as that claimed in the instant application in the invention

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of Fortier et al. motivated by the fact that Suitch et al., drawn to mineral products and structural mineral pigments, disclose that in order to obtain a composition comprising calcium carbonate particles having an increased packing density and a dispersion thereof which has low viscosity and high concentration, it has been found to use two kinds of microscopic calcium carbonate particles with specific and uniform particle sizes and shapes and with sizes different from each other but with a specific relationship which are blended in a specific proportion and compounded with constant amounts of a certain kind of dispersant and inorganic electrolyte (column 4, lines 55-64). Therefore, it would have been obvious to utilize the proper size and size distribution based on the above disclosure.

With reference to "for use in coating compositions to provide a surface finish having high sheet gloss" and "A paper coating pigment", it should be noted that they are recitation in the preamble.

MPEP § 2111.02 states:

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

**Claims 1-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in page 7 of the specification in view of US Patent No. 5,068,276 to Suitch et al.

It is admitted in the prior art that a preferred embodiment of the calcium carbonate pigment is a blend of aragonitic calcium carbonate having mean particle size of 0.4 microns and 0.5 microns which are known as OPACARB A40 and OPACARB A50 PCC.

Although there is no mention of a proportion of said particle sizes of calcium carbonate, nevertheless, it would have been obvious to one of ordinary skill in the art to have utilized a size distribution as that claimed in the instant application in the admitted prior art motivated by the fact that Suitch et al., drawn to mineral products and structural mineral pigments, disclose that in order to obtain a composition comprising calcium carbonate particles having an increased packing density and a dispersion thereof which has low viscosity and high concentration, it has been found to use two kinds of microscopic calcium carbonate particles with specific and uniform particle sizes and shapes and with sizes different from each other but with a specific relationship which are blended in a specific proportion and compounded with constant amounts of a certain kind of dispersant and inorganic electrolyte (column 4, lines 55-64). Therefore, it would have been obvious to utilize the proper size and size distribution based on the above disclosure.

With reference to "for use in coating compositions to provide a surface finish having high sheet gloss" and "A paper coating pigment", it should be noted that they are recitation in the preamble.

MPEP § 2111.02 states:

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited

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purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

**Claims 1-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over the WO 01/66467 to Yaniv in view of Suitch et al.

Yaniv teaches precipitated calcium carbonate (PCC) of aragonite type (needle-shaped with aspect ratio in the range between 1:1 to 100:1) which are used in pigments and have desirable properties such as light scattering characteristics (pages 2 and 3). Yaniv discloses that said particles are dispersed and apart by an average distance in the range between 0.2 microns and 0.4 microns and their size distribution is in the range between 0.2 $\mu$ m and 0.4 $\mu$ m; furthermore, said reference discloses a production of PCC wherein small particles are produced to avoid expensive downstream particle size reduction operations and to cope with the expensive problems of dewatering and drying the product.

Although the reference does not expressly disclose a proportion of said particles for particle sizes, nevertheless, it would have been obvious to one of ordinary skill in the art to have utilized a size distribution as that claimed in the instant application in the Yaniv disclosure motivated by the fact that Suitch et al., drawn to mineral products and structural mineral pigments, disclose that in order to obtain a composition comprising calcium carbonate particles having an increased packing density and a dispersion thereof which has low viscosity and high concentration, it has been found to use two kinds of microscopic calcium carbonate particles with specific and uniform particle sizes

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and shapes and with sizes different from each other but with a specific relationship which are blended in a specific proportion and compounded with constant amounts of a certain kind of dispersant and inorganic electrolyte (column 4, lines 55-64). Therefore, it would have been obvious to utilize the proper size and size distribution based on the above disclosure.

With reference to "for use in coating compositions to provide a surface finish having high sheet gloss" and "A paper coating pigment", it should be noted that they are recitation in the preamble.

MPEP § 2111.02 states:

During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 01261225 to Shibata et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEGAH PARVINI whose telephone number is (571)272-2639. The examiner can normally be reached on Monday to Friday 8:00am-4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. P./  
Examiner, Art Unit 1793

/Michael A Marcheschi/  
Primary Examiner, Art Unit 1793